JOHNN KIRBY:If you could just tell us your name and a little bit about your background?

[redacted]

WITTKOWSKI: My name is Knut Wittkowski. I was at the Rockefeller University for 20 years, Head of the Department of Biostatistics Epidemiology and Research Design, and before that, I worked for 15 years with Klaus Dietz, one of the leading epidemiologists in the world in the German town of Tubingen in the Eberhard Karls University.

[redacted]

JK: You gave recommendations for how best to deal with COVID-19. Could you just describe what you wrote?

[redacted]

DR. WITTKOWSKI: As with every respiratory disease, we should protect the elderly and fragile because when they get pneumonia, they have a high risk of dying of the pneumonia. So that is one of the key issues that we should keep in mind. On the other hand, children do very well with these diseases. They're evolutionarily designed to be exposed to all sorts of viruses during their lifetime, and so they should keep going to school and infecting each other. Then, that contributes to herd immunity, which means after about four weeks at the most, the elderly people could start joining their family because then the virus would have been extinguished.

[redacted]

JK: You mention in the piece that in fact you think containment would prolong the duration of the virus. Can you talk about that?

[redacted]

DW: With all respiratory diseases, the only thing that stops the disease is herd immunity. About 80% of the people need to have had contact with the virus, and the majority of them won't even have recognized that they were infected, or they had very, very mild symptoms, especially if they are children. So, it's very important to keep the schools open and kids mingling to spread the virus to get herd immunity as fast as possible, and then the elderly people, who should be separated, and the nursing homes should be closed during that time, can come back and meet their children and grandchildren after about 4 weeks when the virus has been exterminated.

[redacted]

JK: And so, what do you make of the policy that was enacted in the United States and England and most places throughout the world, this policy of containment, shelter-in-place, etc.? What's your opinion of it?

[redacted]

DW: Well, what people are trying to do is flatten the curve. I don't really know why. But, what happens is if you flatten the curve, you also prolong, to widen it, and it takes more time. And I don't see a good reason for a respiratory disease to stay in the population longer than necessary.

[redacted]

JK: And what do you say to people who just say, "We just didn't know about the lethality of this virus and it was the smartest thing to do, to do what we did, and contain everybody, because we just didn't have the data."

[redacted]

DW: We had two other SARS viruses before. Or, coronaviruses. It's not the first coronavirus that comes out, and it won't be the last. And for all respiratory diseases, we have the same type of an

epidemic. If you leave it alone, it comes for two weeks, it peaks, and it goes for two weeks and it's gone.

JK: You were speaking to my producer the other day on the phone, and you said, “The pandemic is over.” What do you mean by that?

DW: There are no more new cases in China and in South Korea. The number of new cases in Europe is already beginning to decline. The virus came later to the US, so here we see a bit of an incline, maybe, and leveling off within the next couple of days. And if we see that the cases are not increasing dramatically, that means that the number of new infections has already declined substantially and peaked about a week ago.

LIBBY HANDROS: Do you believe the Chinese statistics? Do you think they've lied to us? Do you believe the stats that have come out of China?

DW: The epidemic has ended there, yes. Because otherwise, we would see people emerging - and even in China, it's today very difficult to keep information under the hood. If there were lots of cases in hospitals, if the hospitals that they built, the temporary hospitals, were still full, we would hear that. This could not be suppressed.

JK: During the press briefing yesterday, Fauci, and the President, and the rest of the people assembled, were saying that, had they not done the containment strategy that they have done, that upwards of 2 million people would have died in the United States. What do you think of that figure?

DW: Well, I'm not paid by the government, so I'm entitled to actually do science. If the government, if there had been no intervention, the epidemic would have been over, like every other respiratory disease epidemic.

JK: And how many, in your estimation, would have died? Would it have been that much?

DW: Okay. We have, right now, let's take realistic numbers in the United Sates: we have about 25,000 cases every day, that is probably the upper limit - make it 30,000 - who knows? But let's talk about 25,000. 2% of them will actually have symptoms - that is 500 cases a day. Maybe a third or a fifth - let's say half of them - will need to be hospitalized. That's 250 patients a day. If they have been hospitalized for about 10 days, that means that we will have - our hospital system will have to deal with 2,500 patients every day for a certain period of time - that could be 3 or 4 weeks, and then the number will dramatically decrease again and the whole epidemic will be over.

JK: And of those hospitalized cases, what, in your estimation, how many would die?

DW: 2% will die-

JK: Of the hospitalized cases?

DW: Of all cases.

JK: Of all symptomatic cases.

DW: Of all symptomatic cases. 2% of all symptomatic cases will die. That is 2% of the 25,000 a day. So that is 500 people a day, and that will happen over 4 weeks. So, that could be as high as 10,000 people. Now, that compares to the normal numbers of flus during the flu season, and we

have in the United States about 35,000 deaths due to flu every year during the flu season. So, it would be part of the normal situation during the flu season.

LIBBY HANDROS: Are they reporting flu deaths this year or is everything just corona? Is there any statistic for flu death?

DW: Yeah, there is a statistic for flu. It's currently at about 10,000-12,000. So, together with the Corona deaths, it's about regular flu season.

JK: You’re basing your estimate now on the latest available numbers?

DW: Yes.

LIBBY HANDROS: So, what accounts, then, for the fact that the hospitals are suddenly more overrun than they have been in a previous flu season, and for world leaders and the news media just going crazy?

DW: Funding for hospitals has, as everybody knows, not increased recently. So, hospitals had to cut down, and, therefore, they now have to run their emergency plans, which is not terrible. That's what they have been planning for, for decades, so if they have to put up some tents in Central Park, that's not the end of the world. The tents are there, they're maintained very well, and they will be there for a few weeks - three, four, maybe, and then the crisis will be over. This is not a situation nobody has ever thought about.

JK: Do you really think that there's a major shortage of masks, and things like this?

DK: Of what?

JK: Masks and PPE and all this? What do you think about all that? Why should there be a shortage of those things?

DW: Because people are getting crazy now and it's almost like the toilet paper [...].

JK: I knew someone at a NICU who suddenly - two weeks ago, in New York, at NYU, suddenly all the masks and all the hand sanitizer was gone. So....what do you think happened there?

DW: Like the toilet paper. Shortages happen now and then, all the time.

JK: Right, sure.

DW: And if you have somebody reporting what's happening that day, in that hospital, possible.

JK: Yeah. Sure.

DW: Does it reflect the state of the whole hospital system in New York? Not necessarily.

JK: Right. What do you think about their latest figure that because of, they claim that because of social distancing, that we've saved ourselves from the 2 million dead, but that we are probably looking at 150-200,000 dead, though they've said that it's possible that it could be lower, if we are really, really good about social distancing, etc. What do you think about their new estimate of death?

[redacted]

DW: Social distancing definitely is good. It prevented the sky from falling down.

[redacted]

JK: Are you being ironic?

[redacted]

DW: Of course! I don't know where these numbers are coming from - they're totally unrealistic. There are no indications that this flu is fundamentally different from every other flu. We know what happened in China, we know what happened in South Korea, we know what happened, or is happening, in Europe. There are no indications that anything is different from a regular flu. Maybe it's a bit worse than other flus - could be? For a respiratory disease, the flu ends during springtime, that people spend more time outdoors because outdoors, the viruses cannot easily spread. That is a form of containment, spending more time outdoors.

[redacted]

JK: So, we're now spending more time indoors. We've been told to go indoors. Isn't that- doesn't that help keep the virus going?

[redacted]

DW: It keeps the virus healthy, yeah.

[redacted]

LIBBY HANDROS: So we should be told to go outdoors?

[redacted]

DW: Yeah. Going outdoors is what stops every respiratory disease.

[redacted]

JK: People will say that the reason why China came out of this okay in the end is because they went into such severe lockdown. What do you say to that?

[redacted]

DW: They had an advantage that in the beginning, they didn’t know what they were dealing with. So, it took them a long time to start the containment or social distancing, which, in the course of the epidemic is good, because there was enough time for the virus to reach herd immunity before the social distancing started.

[redacted]

JK: Now, it's interesting that you say that, because at Imperial College, you know Neil Ferguson has changed his estimate of the number of dead in England from 500,000 to 20,000 or less, and he says that that is because of social distancing. Now, we also know that the way in which social distancing was implemented in England was not very severe, or extreme, or efficient, so this was after one day of lockdown, he announced that in fact, it would be 20,000 or less. Is there any possibility that that number would have changed that way because of the social distancing?

[redacted]

DW: No. Actually, we have data for that. I looked into the claim that people make that, in China and South Korea, the social distancing had successfully helped to control the epidemic. I looked at the dates when people actually started social distancing. In China, the epidemic peaked on February 1st to February 5th, in that period. But the schools were not closed until February the 20th - that was 2

weeks later. In South Korea, we have a similar pattern. In Daegu, or however that city is being pronounced, where the Church of Shincheonji had that outbreak. The self-quarantine was ordered only on February the 23rd, but the peak in that city happened; the national distancing was not advised until February the 29th, so that's a week later, when the national peak happened. So, both in China and in South Korea, social distancing started only long after the number of infections had already started to decline, and therefore had very little impact on the epidemic. That means they had already reached herd immunity or were about to reach herd immunity. They were very close. But by installing the social distancing, they prevented it to actually getting to the final point, and this is why we are still seeing new cases in South Korea, several weeks after the peak.

[redacted]

JK: You said that this is the sort of contagion, because it's airborne, that you can't deal with by doing tracing or by social distancing. Explain why that is.

[redacted]

DW: One thing is tracing with an airborne disease is even more difficult than tracing with a sexually transmitted disease which is difficult enough, as we know from AIDS. Most people know who they had contact with, sexual contact with, over the last two weeks. As a human being traveling the subway in New York and doing other things in New York that we just have to do in New York, I couldn't tell you who the two three four hundred thousand people are I came in contact with over the last two weeks. So, contrast tracing for a respiratory disease is impossible.

[redacted]

JK: Why doesn't containment work for an airborne disease?

[redacted]

DW: You cannot stop the spread of a respiratory disease within a family, and you cannot stop it from spreading with neighbors, with people who are delivering, who are physicians - anybody. People are social, and even in times of social distancing, they have contacts, and any of those contacts could spread the disease. It will go slowly, and so it will not build up herd immunity, but it will happen. And it will go on forever unless we let it go.

[redacted]

JK: Let me ask you, you don't feel this requires a vaccine?

[redacted]

DW: We don't have a vaccine against the common cold. We don't have - we have some vaccines against flu, but they are not that effective. Would it be nice to have a vaccine against SARS? Yeah. It would be nice. But it would help to create herd immunity a bit faster, because those who have the vaccine are already immune, and those who don't, they just need to be exposed to become immune.

[redacted]

JK: You could get this immunity naturally?

[redacted]

DW: For some reason that we haven't fully understood yet, humankind has survived all sorts of respiratory diseases. Nature has a way of making sure that we survive.

[redacted]

LIBBY HANDROS: This morning all the tv doctors were on, saying that, because, obviously, they're starting to read some of these pieces about the statistics being off, etc., and so there you had Doctor Jennifer Ashton on ABC, and I forget the others, saying, "This is more contagious than any

seasonal flu or the H1N1, and this is why we have to take it so seriously because it's so much more contagious." Is that just ridiculous?

[redacted]

DW: I don't know where that opinion comes from. We have no - the data that we have speaks against it.

[redacted]

JK: And what data do we have and where are you getting your-

[redacted]

DW: We have seen- well. You can download the data from the European CDC every day, the data, all over the world, and you can analyze it. And that's what I have done, and probably other people also have done.

[redacted]

JK: Okay, so, what does this graph tell you, in general?

[redacted]

DW: It tells us that there are no - the numbers in Europe are not increasing anymore, of cases. The deaths follow it by about a week, and that's normal because people die after they develop the disease. But the important thing is that the numbers of infections peaked around a week ago and is already on the decline. The European data includes the data in France where suddenly the number of cases doubled from one day to the next. This is somebody finding a box of reports in an office and sending them in and said, "Oops! We forgot to report that over the last month!" So, this, the epidemic in France is not increasing anymore, even though somebody found a couple of reports in a shoebox.

[redacted]

JK: And why - when they - won't governments just say, "that's because we practiced social distancing?"

[redacted]

DW: I'm not a psychiatrist. I don't know what other people think. I'm a scientist. We can see that in China, in Korea, the epidemic went down, and the epidemic did exactly what every other epidemic did, and it's not that 400% of all people died. Maybe it's 3 rather than 1% - maybe! But nothing is fundamentally different from the flus that we have seen before. Every couple of years there is a flu that is a bit worse than the other flus were, and it goes away in exactly the way the other flus went away, and this one behaves exactly the same way. The epidemic has ended in China, at least, in the provinces where it was. It has ended in South Korea. In Europe, it's declining and will be ending anytime soon. Could be a bit longer than typically, because of the containment, which flattened and prolonged the epidemic. And so, if we really -- that's really good if we want to be affected by it as long as it gets. And in the United States we are doing the same thing. We are prolonging the epidemic to flatten the curve. But eventually, it will end.

[redacted]

LH: Speaking of the numbers, I noticed in your paper, you said that in mid-March there was a change in the reporting system. What was that all about?

[redacted]

DW: This is not the first time it happens. On March 20th, Germany changed its reporting system and suddenly, a lot of cases that had not been reported before were reported. But this is not a sudden

increase in cases. Over all, this had no impact on the dynamic of the German epidemic. It increased until about March 27th or so, and has been stable or declining since. The problem in this disease is that reporting and diagnosing are not separated and recorded differently. In the AIDS epidemic, every case was reported with a day of diagnosis and a day of reporting. For whatever reason, this standard developed during the AIDS epidemic is not being employed here. So, we cannot deconvolute this data. In Italy there was a spike on one day, there was a spike on one day in Norway. But we have seen now so many of these spikes, they last for one day and then the numbers go back to where it was before. So, we are not really scared anymore if we see something changing very fast. Nature doesn't jump. As people have known for a long time. The course of an epidemic is always smooth. There is never a ten-fold increase in number of cases from one day to the other. There is nothing to be scared about. This is a flu epidemic like every other flu. Maybe a bit more severe, but nothing that is fundamentally different from the flus that we see in other years.

[redacted]

JK: What do you think accounts for the difference in response this time than say to the Swine Flu in 2009? Why are we suddenly so much more panicked and having shut the world down? What do you think is going on?

[redacted]

DW: I think at least one factor is the internet. People are using the internet now much more often, and so news, wrong or false, is spreading the globe within hours, if not minutes. And so, let's say 50 years ago, we would read in the paper that about a week ago there was an epidemic of flu in the United States or in China or somewhere else, and at that time, it was already over. So, people would say, "Okay, that happens all the time." Now, what we read is, "Oh! There were 785 cases in the Vatican for two days" Eh, maybe not. And even if it was a reporting error, these stories are circulating the world and contributing to chaos and people being afraid of things they shouldn't be afraid of.

[redacted]

JK: And what do you think are the possible health risks of the policy that we are following now, the shelter in place?

[redacted]

DW: Well, we will see maybe a total of fewer cases – that is possible. However, we will see more cases among the elderly, because we have prevented the school children from creating herd immunity. And so, in the end, we will see more death because the school children don't die, it's the elderly people who die, we will see more death because of this social distancing.

[redacted]

JK: So, we keep being told now about the second wave that will come in the fall. Now, tell us what your thoughts about the second wave are and how - it seems like from everything you're saying is that we'll have a second wave because of social distancing- DW: Yes. JK: Okay, so, could you say that in a sentence for me?

[redacted]

DW: Okay. If we had herd immunity now, there couldn't be a second wave in Autumn. Herd immunity lasts for a couple of years, typically, and that's why the last SARS epidemic we had in 2003, it lasted 15 years for enough people to become susceptible again so that a new epidemic could spread of a related virus. Because typically, there is something that requires cross-immunity, so if you were exposed to one of the SARS viruses, you are less likely to fall ill with another SARS virus. So, if we had herd immunity, we wouldn't have a second wave. However, if we are preventing herd immunity from developing, it is almost guaranteed that we have a second wave as soon as

either we stop the social distancing or the climate changes with winter coming or something like that.

[redacted]

JK: But, because this is an airborne illness, it sounds to me as though social distancing wouldn't even have prevented more people from getting it, right? I mean, it already spread, because it's airborne, because it lives on surfaces. By the time England or the US shut down, it had probably already gotten all around, right?

[redacted]

DW: Unfortunately, it seems that in western countries where the story of China was already known, people started with social distancing, as imperfect as it is, before the epidemic could reach the level that is needed to develop herd immunity.

[redacted]

JK: I see. And so, to summarize, you are saying that's going to flatten and extend the epidemic and create the second wave that we are being told to fear?

[redacted]

DW: Yes. The second wave is a direct consequence of social distancing.

[redacted]

JK: That's wonderful to hear.

[redacted]

DW: We already know that the social distancing cost the US taxpayer 2 trillion dollars, in addition to everything else that it costs, but it also has severe consequences for our social life, and depression is definitely something that we will be researching. I can say for myself, walking through New York City right now is depressing.

[redacted]

JK: So, what do you think? Should we tolerate this? Should we stand for staying sheltered in house arrest till ... what is it? April 30th they want?

[redacted]

LH: April 30th now.

[redacted]

JK: I mean, is that what we ought to do or should we, perhaps, be resisting?

[redacted]

DW: We should be resisting, and we should, at least, hold our politicians responsible. We should have a discussion with our politicians. One thing we definitely need to do, and that would be safe and effective, is opening schools. Let the children spread the virus among themselves, which is a necessity to get herd immunity. That was probably one of the most destructive actions the government has done. We should focus on the elderly and separating them from the population where the virus is circulating. We should not prevent the virus from circulating among school children, which is the fastest way to create herd immunity.

[redacted]

JK: And can you explain, just one more time, as clearly as you can, what's the concept with natural herd immunity? What happens to the virus when it's gone through the population in the way you're describing?

[redacted]

DW: If 80% of people have had contact with the virus and are therefore immune, and that, typically, that contact is just a form of immunization. So, there is no disease, there's nothing happening, and still there is immunity. If 80% of people are immune and somebody has a virus and is infectious, it will be very difficult for that infectious person to find somebody who is still susceptible, not immune. And therefore, this person will not infect anybody else and therefore we won't have the disease spreading. That is herd immunity.

[redacted]

JK: And what happens to the virus? What happens to the virus, at that point?

[redacted]

DW: Well, viruses don't live, technically, but the virus will eventually be destroyed.

[redacted]

JK: I see.

[redacted]

DW: Unless, right now, it is at the drycleaners. My drycleaner closed down because of COVID, so I can't get my clothes cleaned. And so, if there should be viruses on my clothes, which is possible, I cannot get them cleaned at the drycleaner because the drycleaner is a non-essential service and therefore closed down. We are experiencing all sorts of counterproductive consequences of not well-thought-through policy.

[redacted]

JK: Should there be a major testing regime in place where the whole population is tested, and should that be a prerequisite for us coming out?

[redacted]

DW: Any answer with two letters will do. No.

[redacted]

JK: So, just describe why testing is not productive.

[redacted]

DW: Testing doesn't stop anything by itself. Testing could give us, if we do antibody testing, not testing for the actual virus. If we do antibody testing, we would actually get an estimate of how close we are to herd immunity. That could be useful. But, testing for people who are infectious means they probably have already been, for two or three days, been in for half of their infectious period. Now, they are being tested positive what are they supposed to do? We are already having social distancing. They can't do much more than they are already doing. Testing for respiratory disease is neither necessary nor effective.

[redacted]

JK: Now, you said, you mentioned earlier that you have asthma. And I'm guessing you're over 40?

[redacted]

DW: Yes.

[redacted]
JK: Are you at all nervous about-
[redacted]
DW: No.
[redacted]
JK: Why aren't you nervous?
[redacted]
DW: We don't die of the virus. We die of pneumonia. So, if we have a virus respiratory disease, the disease - once the body has created antibodies, the immune system has created antibodies, the antibodies, or the immune system is killing all infected cells which destroys much of the mucosa. And bacteria can easily settle on that destroyed mucosa, and then cause pneumonia. And it is the pneumonia that is killing people, if it's not treated. I had a virus, whatever it was, maybe it was - who knows - about three weeks ago, and my physician gave me the antibiotics I should take if the disease gets better and then gets worse, because that is a sign of pneumonia and then we have to treat the pneumonia.
[redacted]
JK: And pneumonia is what is treated with antibiotics-
[redacted]
DW: Pneumonia is what's treated with antibiotics. Not the virus.
[redacted]
JK: Okay. So, you feel that it's - you may have already had COVID-19?
[redacted]
DW: Okay. At the end of that experience which reminds me of Camus’s Plague, if you ever read it, you will see lots of parallels, unfortunately. So, no, I am not scared. I may have had it, like many other people, who had a mild flu like I had, or had no symptoms whatsoever. That is the normal thing happening to 70% of the people in the end, or even 75%, and it is the remaining that get ill and need treatment. And they should seek treatment as early as possible - you shouldn't wait. And it's definitely helpful if you have health insurance. The problem in cities like New York is there are too many people who don't have health insurance. And if you don't have health insurance, you are hesitant to see your doctor. And if you are hesitant, you see the doctor too late, and if pneumonia has already progressed, and you see your doctor, it's too late for antibiotics to be effective and you may die. The best way is isolate if you are old and fragile, and if you get the disease, see your doctor as soon as possible.
[redacted]
JK: 75% you say won't get any symptoms, maybe even 80%, right? Or is it more? I mean, do we know what that rate is right now?
[redacted]
DW: We don't know what it is right now. For that, we would need to do antibody testing, and very wide antibody testing. However, we already see the epidemic declining and that is a sign that we have at least a substantial proportion of people who are immune. It may not be enough for herd immunity yet. We may not have reached the 80% that we need. But we may have 50%.

[redacted]

JK: And so, what do you think we should do at this point? Should we pivot to what you suggested earlier or is it too late for what you suggested?

[redacted]

DW: It's difficult to tell. It may be too late. It may not be too late. The problem is, if we are artificially keeping the number of infections low among low-risk people like schoolchildren and their parents, we may not have reached herd immunity yet, so if we are stopping, we may have an increase in the number of new infections. That is the downside of starting containment. We should not believe that we are more intelligent than Mother Nature was when we were evolving. Mother Nature was pretty good at making sure that we're a good match for the disease that we happen to see virtually every year.

[redacted]

LEE DAVIS: But is this a pandemic? That's the big question.

[redacted]

DW: It is a pandemic like every flu every year is.

[redacted]

LEE: A pandemic, yeah?

[redacted]

JK: So, is there anything else you want to say about this that – what's been aggravating you the most? Or what would you like people to know?

[redacted]

DW: I think people in the United States and maybe other countries as well are more docile than they should be. People should talk with their politicians, question them, ask them to explain, because if people don't stand up to their rights, their rights will be forgotten. I'm Knut Wittkowski. I was at the Rockefeller University, I have been an epidemiologist for 35 years, and I have been modeling epidemics for 35 years. It's a pleasure to have the ability to help people to understand, but it's a struggle to get heard.